U.S. DEPARTMENT OF COMMERCE

ATTY, DOCKET NO. 211.001-D2-US

10/724,377

SERIAL NUMBER

PATENT AND TRADEMARK OFFICE

Fazan et al.

FILING DATE

APPLICANT(S)

GROUP ART UNIT

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

November 28, 2003

U. C. DATENT DOCIMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
Wil	4,032,947	6/1977	Kesel et al.			
İ	3,997,799	12/1976	Baker			
	5,448,513	9/1995	Hu et al.			
	4,298,962	11/1981	Hamano et al.			
	3,439,214	4/1969	Kabell			
	6,081,443	6/2000	Morishita			
	6,111,778	8/2000	MacDonald et al.			

FOREIGN PATENT DOCUMENTS

NIMAKE AITINI	·	DATE	COUNTRY	CLASS	SUB CLASS	- 1 123/NO	
WSL	FR 2 197 494	3/1974	French		_		
	EP 1 180 799	2/2002	European				
	EP 0 030 856	6/1981	European				
	GB 1 414 228	11/1975	Great Britain				
	EP 0 694 977	1/1996	European				
	JP 02 294076	2/1991	Japanese				
,	EP 1 237 193	9/2002	European				
	EP 0 878 804	11/1998	European				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WSL	"The Multistable Charge-Controlled Memory Effect in SOI MOS Transistors at Low Temperatures", Tack et al., IEEE Transactions on Electron Devices, Vol. 37, No. 5, May 1990, pp.1373-1382

EXAMINER	G/1	<u>ے</u>	

DATE CONSIDERED

1/05/05

U.S. DEPARTMENT OF COMMERCE

PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 2 of 2
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	

			S. PATENT DOCUMENTS	υ.		
FILING DATE	SUB CLASS	CLASS	NAME	DATE	DOCUMENT NUMBER	EXAMINER INITIALS
			Koga	8/1999	5,936,265	WSL
			Wu et al.	7/1998	5,780,906	1
			Matloubian	9/1992	5,144,390	
			Hartmann	12/1997	5,696,718	V
					•	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION TES/NO	
WSL	EP 0 801 427	10/1997	European				
WSL	EP 0 513 923	11/1992	European				

	OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)
;									

EXAMINER	1/2

DATE CONSIDERED

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet 3 of 2
SERIAL NUMBER
10/724,377
GROUP ART UNIT

November 28, 2003

	r		S. PATENT DOCUMENTS	- 		I
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
USL	4,298,962	11/1981	Hamano et al.			
,	5,489,792	2/1996	Hu et al.			
	5,982,003	11/1999	Hu et al.			
	6,121,077	9/2000	Hu et al.			
	6,300,649	10/2001	Hu et al.			
	6,518,105	2/2003	Yang et al.			
V	2002 0070411	6/2002	Vermandel et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRUMPLATION TRE/NO	
WSL	EP 0 731 972	11/2001	European				
1	EP 0 362 961 B1	2/1994	European				
	EP 0 362 961 A1	4.1990	European				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WSL	"A Capacitorless Double-Gate DRAM Cell", Kuo et al., IEEE Electron Device Letters, Vol. 23, No. 6, June 2002, pp.345-347
1	"A Capacitorless Double-Gate DRAM Cell for High Density Applications", Kuo et al., IEEE IEDM, 2002, pp.843-946
	"The Multi-Stable Behaviour of SOI-NMOS Transistors at Low Temperatures", Tack et al., Proc. 1988 SOS/SOI Technology Workshop (Sea Palms Resort, St. Simons Island, GA, Oct. 1988), p.78
	"The Multistable Charge-Controlled Memory Effect in SOI MOS Transistors at Low Temperatures", Tack et al., IEEE Transactions on Electron Devices, Vol. 37, No. 5, May 1990, pp.1373-1382
	"Mechanisums of Charge Modulation in the Floating Body of Triple-Well nMOSFET Capacitor-less DRAMs", Villaret et al., Proceedings of the INFOS 2003, Insulating Films on Semiconductors, 13th Bi-annual Conference, June 18-20, 2003, Barcelona (Spain), (4 pages)

	EXAMINER .	DATE CONSIDERED	1/15/05
--	------------	-----------------	---------

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

NFORMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 4 of 2
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME-	CLASS	SUB CLASS	filing Date
WSL	JSU 2001/0055859 12/2001 Yamada et al.					
<u> </u>	2002/0030214	3/2002	Horiguchi			
	2002/0034855	3/2002	Horiguchi et al.			
	2002/0051378	5/2002	Ohsawa	·		
	2002/0076880	6/2002	Yamada et al.			
	2002/0098643	7/2002	Kawanaka et al.			
	2002/0110018	8/2002	Ohsawa			
	2002/0114191	8/2002	lwata et al.			
	2002/0130341	9/2002	Horiguchi et al.			
	2002/0160581	10/2002	Watanabe et al.			
	2003/0003608	1/2003	Arikado et al.			
	2003/0015757	1/2003	Ohsawa			
	2003/0035324	2/2003	Fujita et al.			
	2003/0057487	3/2003	Yamada et al.			
	2003/0057490	3/2003	Nagano et al.			
V	2003/0112659	6/2003	Ohsawa			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY		SUB CLASS	ARWING ARMINISTRA

		OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	ECC.)	
1											
i	1										
	1										
	1					_					
•					-						

	<u> </u>	, ,
EXAMINER Je	DATE CONSIDERED	1/65/05

U.S. DEPARTMENT OF COMMERCE

BY APPLICANT

PATENT AND TRADEMARK OFFICE NFORMATION DISCLOSURE STATEMENT

ATTY.	DOCKET	NO.
	211.0	01-D2-US

SERIAL NUMBER 10/724,377

APPLICANT(S)

Fazan et al.

FILING DATE

GROUP ART UNIT

November 28, 2003

DATENIT PACIFICATION

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
USL	2003/0146488	8/2003	Nagano et al.			
1	2003/0151112	8/2003	Yamada et al.			
	6,252,281	6/2001	Yamamoto et al.			
	6,292,424	9/2001	Ohsawa			
	6,351,426	2/2002	Ohsawa			
	6,466,511	10/2002	Fujita et al.			
	6,538,916	3/2003	Ohsawa	_		
	6,548,848	4/2003	Horiguchi et al.			
1	6,567,330	5/2003	Fujita et al.			

FOREIGN PATENT DOCUMENTS

1	iner Pials	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRUMSL Yes/	
W	4	EP 1 191 596	3/2002	European				
		EP 1 233 454	8/2002	European				
		JP 247735	8/2000	Japanese				
		JP 274221	9/2000	Japanese				
	,	JP 389106	12/2000	Japanese				
,	V	JP 180633	6/2001	Japanese				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

wer	"A Memory Using One-Transistor Gain Cell on SOI (FBC) with Performance Suitable for Embedded DRAM's", Ohsawa et al., 2003 Symposium on VLSI Circuits Digest of Technical Papers, June 2003 (4 pages)
	"FBC (Floating Body Cell) for Embedded DRAM on SOI, Inoh et al., 2003 Symposium on VLSI Circuits Digest of Technical Papers, June 2003 (2 pages)
V	"Toshiba's DRAM Cell Piggybacks on SOI Wafer", Y. Hara, EE Times, June 2003

EXAMINER	DATE CONSIDERED	1/	1/0	
----------	-----------------	----	-----	--

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 6 of 23
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	

PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSL	4,979,014	12/1990	Hieda et al.			
WSI	5,258,635	11/1993	Nitayama et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	Translation Tes/No	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Older books and Constituting Indiana, 1999
WSL	"Memory Design Using a One-Transistor Gain Cell on SOI", Ohsawa et al., IEEE Journal of Solid- State Circuits, Vol. 37, No. 11, November 2002, pp.1510-1522
1	"Opposite Side Floating Gate SOI FLASH Memory Cell", Lin et al., IEEE, March 2000, pp.12-15
	"Advanced TFT SRAM Cell Technology Using a Phase-Shift Lithography", Yamanaka et al., IEEE Transactions on Electron Devices, Vol. 42, No. 7, July 1995, pp.1305-1313
	"Soft-Error Characteristics in Bipolar Memory Cells with Small Critical Charge", Idei et al., IEEE Transactions on Electron Devices, Vol. 38, No. 11, November 1991, pp.2465-2471
	"An SOI 4 Transistors Self-Refresh Ultra-Low-Voltage Memory Cell", Thomas et al., IEEE, March 2003, pp.401-404
	"Design of a SOI Memory Cell", Stanojevic et al., IEEE Proc. 21 st International Conference on Microelectronics (MIEL '97), Vol. 1, NIS, Yugoslavis, 14-17 September 1997, pp.297-300
	"Effects of Floating Body on Double Polysilicon Partially Depleted SOI Nonvolatile Memory Cell", Chan et al., IEEE Electron Device Letters, Vol. 24, No. 2, February 2003, pp.75-77
	"MOSFET Design Simplifies DRAM", P. Fazan, EE Times, May 14, 2002 (3 pages)
	"One of Application of SOI Memory Cell – Memory Array", Lončar et al., IEEE Proc. 22 nd International Conference on Microelectronics (MIEL 2000), Vol. 2, NIŠ, Serbia, 14-17 May 2000, pp.455-458
	"A SOI Current Memory for Analog Signal Processing at High Temperature", Portmann et al., 1999 IEEE International SOI Conference, Oct. 1999, pp.18-19
V	"Chip Level Reliability on SOI Embedded Memory", Kim et al., Proceedings 1998 IEEE International SOI Conference, Oct. 1998, pp.135-139

EXAMINER LA	DATE CONSIDERED	1/15/05

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 7 of 2
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
un	5,886,385	3/1999	Arisumi et al.			
WSL	5,929,479	7/1999	Oyama ·			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	LATION 5/NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
"Analysis of Floating-Body-Induced Leakage Current in 0.15µ m SOI DRAM", Terauchi et al., Proceedings 1996 IEEE International SOI Conference, Oct. 1996, pp.138-139
"Programming and Erase with Floating-Body for High Density Low Voltage Flash EEPROM Fabricated on SOI Wafers", Chi et al., Proceedings 1995 IEEE International SOI Conference, Oct. 1995, pp.129-130
"Measurement of Transient Effects in SOI DRAM/SRAM Access Transistors", A. Wei, IEEE Electron Device Letters, Vol. 17, No. 5, May 1996, pp.193-195
"In-Depth Analysis of Opposite Channel Based Charge Injection in SOI MOSFETs and Related Defect Creation and Annihilation", Sinha et al., Elsevier Science, Microelectronic Engineering 28, 1995, pp.383-386
"Dynamic Effects in SOI MOSFET's", Giffard et al., IEEE, 1991, pp.160-161
"A Simple 1-Transistor Capacitor-Less Memory Cell for High Performance Embedded DRAMs", Fazan et al., IEEE 2002 Custom Integrated Circuits Conference, June 2002, pp.99-102
"A Novel Pattern Transfer Process for Bonded SOI Giga-bit DRAMs", Lee et al., Proceedings 1996 IEEE International SOI Conference, Oct. 1996, pp.114-115
"An Experimental 2-bit/Cell Storage DRAM for Macrocell or Memory-on-Logic Application", Furuyama et al., IEEE Journal of Solid-State Circuits, Vol. 24, No. 2, April 1989, pp.388-393
"High-Performance Embedded SOI DRAM Architecture for the Low-Power Supply", Yamauchi et al., IEEE Journal of Solid-State Circuits, Vol. 35, No. 8, August 2000, pp.1169-1178
"An SOI-DRAM with Wide Operating Voltage Range by CMOS/SIMOX Technology", Suma et al., 1994 IEEE International Solid-State Circuits Conference, pp.138-139
"A Capacitoriess DRAM Cell on SOI Substrate", Wann et al., IEEE IEDM, 1993, pp.635-638

EXAMINER .	DATE CONSIDERED	1/15/05

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. SERIAL NUMBER 211.001-D2-US 10/724,377 APPLICANT(S) Fazan et al. FILING DATE GROUP ART UNIT

FORMATION DISCLOSURE STATEMENT BY APPLICANT

November 28, 2003

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
482	6,391,658	5/2002	Gates et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRUMBI TEA	
				1			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Including Addition, 1222), Deed, 1022110112 12400, Deed,
WSL	"The Multistable Charge Confrolled Memory Effect in SOI Transistors at Low Temperatures", Tack et al., IEEE Workshop on Low Temperature Electronics, 7-8 Aug. 1989, University of Vermont, Burlington, pp.137-141
	"High-Endurance Ultra-Thin Tunnel Oxide in MONOS Device Structure for Dynamic Memory Application", Wann et al., IEEE Electron Device Letters, Vol. 16, No. 11, November 1995, pp.491-493
	"Hot-Carrier Effects in Thin-Film Fully Depleted SOI MOSFET's", Ma et al., IEEE Electron Device Letters, Vol. 15, No. 6, June 1994, pp.218-220
	"Design Analysis of Thin-Body Silicide Source/Drain Devices", 2001 IEEE International SOI Conference, October 2001, pp.21-22
	"SOI MOSFET on Low Cost SPIMOX Substrate", Iyer et al., IEEE IEDM, September 1998, pp.1001-1004
	"Simulation of Floating Body Effect in SOI Circuits Using BSIM3SOI", Tu et al., Proceedings of Technical Papers (IEEE Cat No. 97 TH 8303), pp.339-342
	"High-Field Transport of Inversion-Layer Electrons and Holes Including Velocity Overshoot", Assaderaghi et al., IEEE Transactions on Electron Devices, Vol. 44, No. 4, April 1997, pp.664-671
	"Dynamic Threshold-Voltage MOSFET (DTMOS) for Ultra-Low Voltage VLSI", Assaderaghi et al., IEEE Transactions on Electron Devices, Vol. 44, No. 3, March 1997, pp.414-422
	"Hot-Carrier-Induced Degradation in Ultra-Thin-Film Fully-Depleted SOI MOSFETs", Yu et al., Solid-State Electronics, Vol. 39, No. 12, 1996, pp.1791-1794
	"Hot-Carrier Effect in Ultra-Thin-Film (UTF) Fully-Depleted SOI MOSFET's, Yu et al., 54 th Annual Device Research Conference Digest (Cat. No. 96 TH 8193), pp.22-23

		. //
EXAMINER .	DATE CONSIDERED	1/5/05

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
			·			

FOREIGN PATENT DOCUMENTS

EXAMINER ·	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TOURTLATION YES/NO
				<u>.</u>		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Including Addit), 12010, Date, 1010111111111111111111111111111111111
WSI	"SOI MOSFET Design for All-Dimensional Scaling with Short Channel, Narrow Width and Ultra-thin Films", Chan et al., IEEE IEDM, 1995, pp.631-634
	"A Novel Silicon-On-Insulator (SOI) MOSFET for Ultra Low Voltage Operation", Assaderaghi et al., 1994 IEEE Symposium on Low Power Electronics, pp.58-59
	"Interface Characterization of Fully-Depleted SOI MOSFET by a Subthreshold I-V Method", Yu et al., Proceedings 1994 IEEE International SOI Conference, Oct. 1994, pp.63-64
	"A Capacitorless Double-Gate DRAM Cell Design for High Density Applications", Kuo et al., IEEE IEDM, Feb. 2002, pp.843-846
	"A Dynamic Threshold Voltage MOSFET (DTMOS) for Ultra-Low Voltage Operation", Assaderaghi et al., IEEE IEDM, 1994, pp.809-812
	"Dynamic Threshold-Voltage MOSFET (DTMOS) for Ultra-Low Voltage VLSI", Assaderaghi et al., IEEE Transactions on Electron Devices, Vol. 44, No. 3, March 1997, pp.414-422
	"A Capacitorless DRAM Cell on SOI Substrate", Wann et al., IEEE IEDM 1993, pp.635-638
	"Studying the Impact of Gate Tunneling on Dynamic Behaviors of Partially-Depleted SOI CMOS Using BSIMPD", Su et al., IEEE Proceedings of the International Symposium on Quality Electronic Design (ISQED '02), April 2002 (5 pages)
·	"Characterization of Front and Back Si-SiO₂ Interfaces in Thick- and Thin-Film Silicon-on-Insulator MOS Structures by the Charge-Pumping Technique", Wouters et al., IEEE Transactions on Electron Devices, Vol. 36, No. 9, September 1989, pp.1746-1750
	"An Analytical Model for the Misis Structure in SOI MOS Devices", Tack et al., Solid-State Electronics Vol. 33, No. 3, 1990, pp.357-364
	IEDM, Feb. 2002, pp.843-846 "A Dynamic Threshold Voltage MOSFET (DTMOS) for Ultra-Low Voltage Operation", Assaderaghi et al., IEEE IEDM, 1994, pp.809-812 "Dynamic Threshold-Voltage MOSFET (DTMOS) for Ultra-Low Voltage VLSI", Assaderaghi et al., IEEE Transactions on Electron Devices, Vol. 44, No. 3, March 1997, pp.414-422 "A Capacitorless DRAM Cell on SOI Substrate", Wann et al., IEEE IEDM 1993, pp.635-638 "Studying the Impact of Gate Tunneling on Dynamic Behaviors of Partially-Depleted SOI CMOS Using BSIMPD", Su et al., IEEE Proceedings of the International Symposium on Quality Electronic Design (ISQED '02), April 2002 (5 pages) "Characterization of Front and Back Si-SiO2 Interfaces in Thick- and Thin-Film Silicon-on-Insulator MOS Structures by the Charge-Pumping Technique", Wouters et al., IEEE Transactions on Electron Devices, Vol. 36, No. 9, September 1989, pp.1746-1750 "An Analytical Model for the Misis Structure in SOI MOS Devices", Tack et al., Solid-State

EXAMINER	e CONSIDERED	1/15/05
----------	--------------	---------

PTO-1449 (Modified) ILS. DEPARTMENT OF COMMERCE CATENT AND TRADEMARK OFFICE FORMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 10 of 2
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	

U.S. PATENT DOCUMENTS

						
EXAMINER INITIALS	Document Number	DATE	NAME	CLASS	SUB CLASS	FILING DATE
				 		
		į		1	1	

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSI Yes,	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WSV	"A Long Data Retention SOI DRAM with the Body Refresh Function", Tomishima et al., IEICE Trans. Electron., Vol. E80-C, No. 7, July 1997, pp.899-904
1	"A Simple 1-Transistor Capacitor-Less Memory Cell for High Performance Embedded DRAMs", Fazan et al., IEEE 2002 Custom Integrated Circuits Conference, June 2002, pp.99-102
	"High-Endurance Ultra-Thin Tunnel Oxide in MONOS Device Structure for Dynamic Memory Application", Wann et al., IEEE Electron Device Letters, Vol. 16, No. 11, November 1995, pp.491-493
	"Capacitor-Less 1-Transistor DRAM", Fazan et al., 2002 IEEE International SOI Conference, Oct. 2002, pp.10-13
	"Memory Design Using a One-Transistor Gain Cell on SOI", Ohsawa et al., IEEE Journal of Solid-State Circuits, Vol. 37, No. 11, November 2002, pp.1510-1522
	"SOI (Silicon-on-Insulator) for High Speed Ultra Large Scale Integration", C. Hu, Jpn. J. Appl. Phys. Vol. 33 (1994) pp.365-369, Part 1, No. 1B, January 1994
	"Source-Bias Dependent Charge Accumulation in P+ -Poly Gate SOI Dynamic Random Access Memory Cell Transistors", Sim et al., Jpn. J. Appl. Phys. Vol. 37 (1998) pp.1260-1263, Part 1, No. 3B, March 1998
V	"Suppression of Parasitic Bipolar Action in Ultra-Thin-Film Fully-Depleted CMOS/SIMOX Devices by Ar-Ion Implantation into Source/Drain Regions", Ohno et al., IEEE Transactions on Electron Devices, Vol. 45, No. 5, May 1998, pp.1071-1076

EXAMINER .	DATE CONSIDERED	1/15/05

MAR O B TOTAL

PTO-1449 (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY. DOCKET NO. 211.001-D2-US SERIAL NUMBER 10/724,377

APPLICANT(S)

Fazan et al.

FILING DATE

GROUP ART UNIT

November 28, 2003

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS		LATION B/MO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	OTHER DOCUMENTS (Including Author, little, Date, Feltiment rayes, Dec.,
WSZ	"Fully Isolated Lateral Bipolar-MOS Transistors Fabricated in Zone-Melting-Recrystallized Si Films on SiO ₂ . Tsaur et al., IEEE Electron Device Letters, Vol. EDL-4, No. 8, August 1983, pp.269-271
	"Silicon-On-Insulator Bipolar Transistors", Rodder et al., IEEE Electron Device Letters, Vol. EDL-4, No. 6, June 1983, pp.193-195
	"Characteristics and Three-Dimensional Integration of MOSFET's in Small-Grain LPCVD Polycrystalline Silicon", Malhi et al., IEEE Transactions on Electron Devices, Vol. ED-32, No. 2, February 1985, pp.258-281
	"Triple-Wel nMOSFET Evaluated as a Capacitor-Less DRAM Cell for Nanoscale Low-Cost & High Density Applications", Villaret et al., Handout at Proceedings of 2003 Silicon Nanoelectronics Workshop, June 8-9, 2003, Kyoto, Japan (2 pages)
	"Mechanisms of Charge Modulation in the Floating Body of Triple-Well NMOSFET Capacitor-less DRAMs", Villaret et al., Handout at Proceedings of INFOS 2003, June 18-20, 2003, Barcelona, Spain (2 pages)
	"Embedded DRAM Process Technology", M. Yamawaki, Proceedings of the Symposium on Semiconductors and Integrated Circuits Technology, 1998, Vol. 55, pp.38-43
$\overline{}$	"3-Dimensional Simulation of Turn-off Current in Partially Depleted SOI MOSFETs", Ikeda et al., IEIC Technical Report, Institute of Electronics, Information and Communication Engineers, 1998, Vol. 97, No. 557 (SDM97 186-198), pp.27-34
-	

EXAMINER .	DATE CONSIDERED	1/15/05
------------	-----------------	---------

Sheet 12 of 23 ATTY, DOCKET NO. SERIAL NUMBER PTO-1449 (Modified) 211.001-D2-US 10/724,377 U.S. DEPARTMENT OF COMMERCE APPLICANT(S) PATENT AND TRADEMARK OFFICE Fazan et al. FILING DATE GROUP ART UNIT FORMATION DISCLOSURE STATEMENT BY APPLICANT November 28, 2003 U.S. PATENT DOCUMENTS FILING SUB EXAMINER DOCUMENT DATE NAME CLASS CLASS DATE NUMBER INITIALS FOREIGN PATENT DOCUMENTS SUB EXAMINER DOCUMENT INITIALS NUMBER DATE COUNTRY CLASS CLASS WSI EP 1 288 955 A2 3/2003 European 1/2003 European EP 1 280 205 A2 10/2002 European EP 1 253 634 A2 9/2002 European EP 1 241 708 A2 European EP 1 209 747 A2 5/2002 EP 1 204 147 A1 5/2002 European 5/2002 European EP 1 204 146 A1 2/2002 European EP 1 179 850 A2 EP 1 162 744 A1 12/2001 European EP 1 162 663 A2 12/2001 European EP 1 073 121 A2 1/2001 European EP 0 993 037 A2 4/2000 European EP 0 980 101 A2 2/2000 European 1/2000 European EP 0 971 360 A1 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) DATE CONSIDERED

> EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.

EXAMINER

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION TRE/NO
WSL	EP 0 951 072 A1	10/1999	European			
ı	EP 0 933 820 A1	8/1999	European			
	EP 0 924 766 A2	6/1999	European			
	EP 0 920 059 A2	6/1999	European			
	EP 0 869 511 A2	10/1998	European			
	EP 0 860 878 A2	8/1998	3/1998 European			
	EP 0 858 109 A2	8/1998	European			
	EP 0 844 671 B1	11/2002	European			
	EP 0 836 194 B1	5/2000	European			
	EP 0 788 165 A2	8/1997	European			
	EP 0 744 772 B1 8/2002		European			
	EP 0 739 097 A2	10/1996	European			
	EP 0 731 972 B1	11/2001	European			
V	EP 0 727 822 B1	8/1999	European			

OTE	ER DOCU	MENTS (In	cluding	Author,	Title,	Date,	Pertinent	Pages,	Etc.)	
		•						_		

EXAMINER ...

DATE CONSIDERED

EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication

to applicant.

WIN O B TOWN

PTO-1449 (Modified)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

NFORMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 14 or 2
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	1

U.S. PATENT DOCUMENTS

EXAMINER INITIALS	Document Number	DATE	NAME	CLASS	SUB CLASS	FILING DATE
				l		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TELEVICON TELEVICON
USV	EP 0 727 820 A1	8/1996	European			
1	EP 0 726 601 B1	9/2001	European			
	EP 0 725 402 B1	9/2002	European			
	EP 0 689 252 B1	8/2000	European			
	EP 0 682 370 B1	9/2000	European			
	EP 0 642 173 B1	7/1999	European			
	EP 0 642 173 A1	3/1995	European			
	EP 0 606 758 B1	9/2000	European			
	EP 0 601 590 B1	4/2000	European European			
	EP 0 599 506 A1	6/1994				
	EP 0 599 388 B1	8/2000	European			
	EP 0 579 566 A2	1/1994	European			
	EP 0 564 204 A2	10/1993	European			
V	EP 0 537 677 B1	8/1998	European			

		OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)
										
1	I									

EXAMINER	

DATE CONSIDERED

1/15/05

MAR O 8 2014 BY

PTO-1449 (Modified)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

FORMATION DISCLOSURE STATEMENT
BY APPLICANT

ATTY. DOCKET NO. 211.001-D2-US

10/724,377

APPLICANT(S)

Fazan et al.

FILING DATE

GROUP ART UNIT

SERIAL NUMBER

November 28, 2003

U.S. PATENT DOCUMENTS

			. S. PATENT DOCUMENTS			
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
-			7.1			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	LATION /NO
war	EP 0 510 607 B1	2/1998	European			:
	EP 0 465 961 B1	8/1995	European			
	EP 0 366 882 B1	5/1995	European	`		
	EP 0 362 961 B1	2/1994	European			
	EP 0 359 551 B1	12/1994	European			
	EP 0 354 348 A2	2/1990	European			
	EP 0 350 057 B1	1/1990	European			
	EP 0 333 426 B1	7/1996	European			
	EP 0 300 157 B1	5/1993	European			
	EP 0 253 631 B1	4/1992	European			
	EP 0 245 515 B1	4/1997	European			
	EP 0 207 619 B1	8/1991	European			
	EP 0 202 515 B1	3/1991	European			
	EP 0 175 378 B1	11/1991	European			

OTHER DOCU	MENTS (Including Author,	Title, Date, Pertinent	Pages, Etc.)

EXAMINER

Post Per

DATE CONSIDERED

4/15/05

FORMATION DISCLOSURE STATEMENT BY APPLICANT

PTO-1449 (Modified)

H.S. DEPARTMENT OF COMMERCE

ATTY. DOCKET NO. 211.001-D2-US SERIAL NUMBER 10/724,377

APPLICANT(S)

Fazan et al.

FILING DATE

GROUP ART UNIT

November 28, 2003

		υ.	S. PATENT DOCUMENTS			·
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSL	2002/0036322	3/2002	Divakauni et al.			
j	5,446,299	8/1995	Acovic et al.			
	5,568,356	10/1996	Schwartz			
	5,627,092	5/1997	Alsmeier et al.			
	5,631,186	5/1997	Park et al.			
	5,740,099	4/1998	Tanigawa			
	5,877,978	3/1999	Morishita et al.			
	5,930,648	7/1999	Yang			
	5,939,745	8/1999	Park et al.			
	5,943,258	8/1999	Houston et al.			;
	5,968,840	10/1999	Park et al.			
/	5,977,578	11/1999	Tang			
\forall	6,018,172	1/2000	Hidada et al.			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	Document Number	DATE	COUNTRY	CLASS	SUB CLASS	TUNELATI TES/NO	

	OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)	
 										

EXAMINER	1
EXAMINEN	In .
	خنت

DATE CONSIDERED

NFORMATION DISCLOSURE STATEMENT

PTO-1449 (Modified)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

BY APPLICANT

211.001-D2-US

SERIAL NUMBER 10/724,377

APPLICANT(S)

ATTY, DOCKET NO.

Fazan et al.

FILING DATE

GROUP ART UNIT

November 28, 2003

EXAMINER INITIALS	Document Number	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSI	6,297,090	10/2001	Kim			_
1,	6,384,445	5/2002	Hidaka et al.			·
V	6,590,258	7/2003	Divakauni et al.		·	
	······					

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	SPANSLATION TEE/NO
WSL	JP 62 272561	11/1987	Japanese			
1	JP 8 274277	10/1996	Japanese			
V	JP 9 82912	3/1997	Japanese			

OTHER DOCUMENTS (Including	Author, Title, Date,	Pertinent Pages, Etc.)	

EXAMINER	- 113

DATE CONSIDERED

•	•						
•						Shee	t 18 of
	7.0	0 1440 Madiei		ATTY, DOCKET NO.	SERIAL	NUMBER	
	er	O-1449 (Modified	1)	211.001-D2-US		10/724,37	77
PE		EPARTMENT OF COM		APPLICANT(S)			
/ 0\' -	AC!	AND TRADEPARK C)	Fazan et al.			
'	AL WIECDWATT	ON DISCLOSURE S	TATEMENT	FILING DATE	GROUP A	RT UNIT	
MAR 0 82		BY APPLICANT		November 28, 2003			
Ed. "	**		υ.	S. PATENT DOCUMENTS			
E TRADE	EXAMINER INITIALS	Document Number	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	WSZ	2002/0064913	5/2002	Adkisson et al.			
		2002/0072155	6/2002	Liu et al.			
		2002/0086463	7/2002	Houston et al.			
		2002/0089038	7/2002	Ning			
•		2002/0180069	12/2002	Houston			
		2003/0102497	6/2003	Fried et al.			
		2003/0123279	7/2003	Aipperspach et al.			
•		4,791,610	12/1988	Takemae			
		5,388,068	2/1995	Ghoshal et al.			
•		5,446,299	8/1995	Acovic et al.			
		5,466,625	11/1995	Hsieh et al.			

FOREIGN PATENT DOCUMENTS

Hsieh et al.

Rajeevakumar

Bronner et al.

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATIO YES/NO
		_				
			·			

•	OTHER DOCU	MENTS (Inc.)	uding Author	, Title,	Date,	Pertinent	Pages,	Etc.)
								

EXAMINER		1-	
EVALITIES			
			•

5,528,062

5,593,912

5,606,188

6/1996

1/1997

2/1997

DATE CONSIDERED

U.S. DEPARTMENT OF COMMERCE

211.001-D2-US APPLICANT(S)

ATTY, DOCKET NO.

. 10/724,377

PATENT AND TRADEMARK OFFICE

Fazan et al.

FILING DATE

GROUP ART UNIT

SERIAL NUMBER

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

November 28, 2003

U.S. PATENT DOCUMENTS

<u>y</u>		υ.	S. PATENT DOCUMENTS			
EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
USZ	5,778,243	7/1998	Aipperspach et al.			
	5,784,311	7/1998	Assaderaghi et al.			
	5,811,283	9/1998	Sun			
	5,886,376	3/1999	Acovic et al.			
	5,897,351	4/1999	Forbes			
	5,943,258	8/1999	Houston et al.			
	5,943,581	8/1999	Lu et al.			
	5,960,265	9/1999	Acovic et al.			
	6,096,598	8/2000	Furukawa et al.			
	6,097,056	8/2000	Hsu et al.			
	6,157,216	12/2000	Lattimore et al.			
	6,171,923	1/2001	Chi et al.			
1	6,177,300	1/2001	Houston et al.			
V	6,177,708	1/2001	Kuang et al.			

FOREIGN PATENT DOCUMENTS SUB EXAMINER DOCUMENT CLASS NUMBER DATE COUNTRY CLASS INITIALS

· ·	

EXAMINER

DATE CONSIDERED

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

FORMATION DISCLOSURE STATEMENT BY APPLICANT

	311000 20 01
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT (S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT

November 28, 2003

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WEL	6,214,694	4/2001	Leobandung et al.			
	6,225,158	5/2001	Furukawa et al.			
	6,245,613	6/2001	Hsu et al.			
	6,297,090	10/2001	Kim			
	6,320,227	11/2001	Lee et al.			
	6,333,532	12/2001	Davari et al.			
	6,350,653	2/2002	Adkisson et al.			
	6,403,435	6/2002	Kang et al.			
	6,424,011	7/2002	Assaderaghi et al.			
	6,424,016	7/2002	Houston			
	6,429,477	8/2002	Mandelman et al.			
	6,440,872	8/2002	Mandelman et al.			
	6,441,435	8/2002	Chan			
$\overline{}$	6,441,436	8/2002	Wu et al.			

FOREIGN PATENT DOCUMENTS TRANSLATION TRE/NO SUB EXAMINER DOCUMENT CLASS CLASS COUNTRY NUMBER DATE INITIALS

OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)

EXAMINER	///
	0 7

DATE CONSIDERED

S. DEPARTMENT OF COMMERCE AS. DEPARTMENT OF COMMERCE EXTENT AND TRADEMARK OFFICE

RMATION DISCLOSURE STATEMENT BY APPLICANT

	Sheet 21 of 2
ATTY. DOCKET NO.	SERIAL NUMBER
211.001-D2-US	10/724,377
APPLICANT(S)	
Fazan et al.	
FILING DATE	GROUP ART UNIT
November 28, 2003	

EXAMINER INITIALS	Document Number	DATE	NAME	CLASS	SUB CLASS	FILING DATE
WSL	6,492,211	12/2002	Divakaruni et al.			
1	6,544,837	4/2003	Divakaruni et al.	 }		
	6,549,450	4/2003	Hsu et al.			
	6,552,398	4/2003	Hsu et al.			
	6,556,477	4/2003	· Hsu et al.			
	6,566,177	5/2003	Radens et al.			
,	6,590,258	7/2003	Divakauni et al.			
V	6,590,259	7/2003	Adkisson et al.			
				·		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAHELA TES/I	
WSL	JP 11 87649	3/1999	Japanese				

	OTHER	DOCUMENTS	(Including	Author,	Title,	Date,	Pertinent	Pages,	Etc.)
1				•				_	
Į								 	
ĺ									

EXAMINER		1. >
EXAMILITER	-	,
	0	

DATE CONSIDERED

PTO-1449 (Modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

PATENT AND DISCLOSURE STATEMENT
BY APPLICANT

ATTY. DOCKET NO.

211.001-D2-US

10/724,377

APPLICANT(S)
Fazan et al.

FILING DATE
November 28, 2003

U.S. PATENT DOCUMENTS

		U.S. PAIENI DOCUMENIS					
Examiner initials	DOCUMENT NUMBER	DATE	name	CLASS	SUB CLASS	FILING DATE	
WEL	6,650,565	11/2003	Ohsawa				
1	6,632,723	10/2003	Watanabe et al.				
	6,621,725	9/2003	Ohsawa				
	6,617,651	9/2003	Ohsawa				
1	6,531,754	3/2003	Nagano et al.				
1	2002/0036322	3/2002	Divakauni et al.				

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TENSIATION YES/MO	
WSL	2003-243528	8/2003	Japanese				
1	2002-94027	3/2002	Japanese				
	2002-176154	6/2002	Japanese				
	2002-246571	8/2002	Japanese		_		
	2002-329795	11/2002	Japanese				
	2002-343886	11/2002	Japanese				
	2002-353080	12/2002	Japanese				
	2003-31693	1/2003	Japanese				
V	2003-86712	3/2003	Japanese				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

WSL	DRAM Design Using the Taper-Isolated Dynamic RAM Cell, Leiss et al., IEEE Transactions on Electron Devices, Vol. ED-29, No. 4, April 1982, pp707-714

EXAMINER	DATE CONSIDERED	1/15/	105
----------	-----------------	-------	-----

				ATTY. DOCKET NO.	CERTAL		C 23 OF				
	PT	O-1449 (Modified)	1	211.001-D2-US	SERIAL NUMBER 10/724,377						
	U.S. D	EPARTMENT OF COM	ÆRCE	211.001-D2-US 10//24,3// APPLICANT(S)							
JCIO	PATENT	AND TRADEMARK OF	PPICE	Fazan et al.							
lar dam	MDRMAT!	TON DISCLOSURE ST	ATEMENT	FILING DATE	GROUP A	RT UNIT	T				
.Loo	EE	BY APPLICANT		November 28, 2003							
48	7		U.	S. PATENT DOCUMENTS							
U.S. PATEN ON INDERMAN EXAMINER INITIALS WSV EXAMINER EXAMINER EXAMINER	INER	DOCUMENT	DATE	NAME		SUB	FILING				
INIT	IALS	NUMBER			CLASS	CLASS	DATE				
							 				
				·		<u> </u>	<u> </u>				
		<u> </u>	FORE	GIGN PATENT DOCUMENTS		, I ,	-				
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO				
W	51	2003-100641	4/2003	Japanese							
		2003-100900	4/2003	Japanese							
_		2003-132682	5/2003	Japanese							
		2003-203967	7/2003	Japanese							
		2003-243528	8/2003	Japanese							
		09046688	2/1997	Japanese							
	/	JP 8-213624	8/1996	Japanese							
	V	JP 3-171768	7/1991	Japanese							
		OTHER DOCUMENTS	(Including	Author, Title, Date, Pertine	nt Pages,	Etc.)					
				•							
						 					
											
PYRMT	VER	MP		DATE CONSIDERED	1/15/	1					